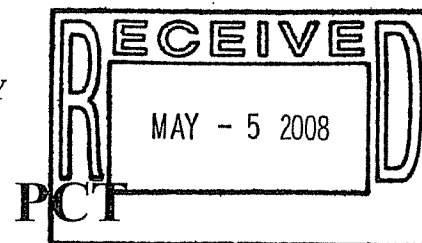


* Pending US
case

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY



To:
GREGORY A. HUNT
JENKINS, WILSON, TAYLOR & HUNT, P.A.
SUITE 1200, UNIVERSITY TOWER
3100 TOWER BOULEVARD
DURHAM, NC 27707

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year)	29 APR 2008
Applicant's or agent's file reference 1497/38 PCT	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US 07/26413	International filing date (day/month/year) 28 December 2007 (28.12.2007)
Applicant GENBAND INC.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 740 14 35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
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Form PCT/ISA/220 (January 2004)

DOCKET DATES: 6/28; 7/28/08 - DEM (See notes on accompanying sheet)
ASSIGNED ATTY: GAH / JK
FILE NO. 1497/38 P4
DOCKETED BY: PCL DATE: 5/6/08
* 105 add for 1497/38/2 is 7/29/08

VJLW
5/7/08

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1497/38 PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US 07/26413	International filing date (<i>day/month/year</i>) 28 December 2007 (28.12.2007)	(Earliest) Priority Date (<i>day/month/year</i>) 28 December 2006 (28.12.2006)
Applicant GENBAND INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed.
☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 6
☒ as suggested by the applicant.
☐ as selected by this Authority, because the applicant failed to suggest a figure.
☐ as selected by this Authority, because this figure better characterizes the invention.
- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/26413

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H01L 29/08 (2008.01)

USPC - 455/414.4

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - H01L 29/08 (2008.01)

USPC - 455/414.4

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 455/403, 414.1, 414.4, 432.2, 452.2; 370/310, 312, 332, 395.21

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST(PGPB,USPT,USOC,EPAB,JPAB); Google Scholar

Search Terms Used: silence insertion descriptor, tandem-free operation, node, point, frame, speech compression, 3G, conversion, wireless, cellular, comfort noise etc.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0084094 A1 (Gass et al.) 21 April 2005 (21.04.2005), para. [0031], [0037], [0041]	1-15
Y	US 2004/0110539 A1 (El-Maleh et al.) 10 June 2004 (10.06.2004), para. [0023], [0032]	1-5, 10-15
Y	US 2001/0043577 A1 (Barany et al.) 22 November 2001 (22.11.2001), para. [0131], [0133]	3, 4, 6-9, 12, 13
Y	US 2004/0133419 A1 (El-Maleh et al.) 8 July 2004 (08.07.2004), para. [0028]	5, 9, 14

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

03 April 2008 (03.04.2008)

Date of mailing of the international search report

29 APR 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
GREGORY A. HUNT
JENKINS, WILSON, TAYLOR & HUNT, P.A.
SUITE 1200, UNIVERSITY TOWER
3100 TOWER BOULEVARD
DURHAM, NC 27707

Date of mailing
(day/month/year) **29 APR 2008**

Applicant's or agent's file reference
1497/38 PCT

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US 07/26413

International filing date (day/month/year)
28 December 2007 (28.12.2007)

Priority date (day/month/year)
28 December 2006 (28.12.2006)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H01L 29/08 (2008.01)
USPC - 455/414.4

Applicant GENBAND INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-3201

Date of completion of this opinion
3 April 2008 (03.04.2008)

Authorized officer:
Lee W. Young

PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774



WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US 07/26413

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed.
☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US 07/26413

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
1. Statement				
Novelty (N)	Claims	1-15		YES
	Claims	None		NO
Inventive step (IS)	Claims	None		YES
	Claims	1-15		NO
Industrial applicability (IA)	Claims	1-15		YES
	Claims	None		NO
2. Citations and explanations:				
<p>Claims 1, 2, 10, 11 and 15 lack an inventive step under PCT Article 33(3) as being obvious over US 2005/0084094 A1 to Gass et al. (hereinafter Gass) in view of US 2004/0110539 A1 to El-Maleh et al. (hereinafter El-Maleh '539).</p> <p>As per claims 1, 10 and 15, Gass discloses system and a corresponding method and computer program using that system for silence insertion descriptor (SID) conversion (para. [0037]), the method comprising: receiving a wireless frame (para. [0024]), the frame identifying a first node as a frame source and a second node as a frame destination (send/receive modules, MER, (para. [0034])); determining whether the frame is a SID frame (para. [0041]); responsive to a determination that the frame is a SID frame, determining whether the SID format used by the first node is incompatible with the SID format used by the second node (determine if it is type I or type II, para. [0043]); and responsive to a determination that the SID format used by the first node is incompatible with the SID format used by the second node, converting the frame from the SID format used by the first node to the SID format used by the second node and sending the converted SID frame to the second node (converting from type I to type II, para. [0050]). Gass does not disclose determining whether tandem-free operation (TFO) is applicable; responsive to a determination that TFO is applicable, determining whether the frame is a SID frame. However, El-Maleh '539 discloses determining whether tandem-free operation (TFO) is applicable; responsive to a determination that TFO is applicable, determining whether the frame is a SID frame (para. [0023]). Therefore, it would have been obvious to one of ordinary skill in the art to determine TFO applicability as taught by El-Maleh '539 in the method of Gass because to communicate using different types of wireless interfaces (El-Maleh '539: para. [0032]), thereby increasing communication interfacing efficiency and hence increasing the overall performance of the combined system.</p> <p>As per claims 2 and 11, Gass in view of El-Maleh discloses the method and system as applied to claims 1 and 10, above. El-Maleh '539 further disclose that determining whether TFO is applicable includes determining whether a speech compression algorithm and data rate used by the first node is the same as a speech compression algorithm and data rate used by the second node (para. [0007]-[0008]).</p> <p>Claims 6-8 lack an inventive step under PCT Article 33(3) as being obvious over Gass in view of US 2001/0043577 A1 to Barany et al. (hereinafter Barany).</p> <p>As per claim 6, Gass discloses system and a corresponding method and computer program using that system for silence insertion descriptor (SID) conversion (para. [0037]), the method comprising: receiving a wireless frame (para. [0024]), the frame identifying a first node as a frame source and a second node as a frame destination (send/receive modules, MER, (para. [0034])); identifying a first codec used by the first node and a second codec used by the second node (); determining whether the frame is a SID frame (para. [0041]); responsive to a determination that the frame is a SID frame, determining whether the SID format used by the first node is incompatible with the SID format used by the second node (determine if it is type I or type II, para. [0043]); and responsive to a determination that the SID format used by the first node is incompatible with the SID format used by the second node, converting the frame from the SID format used by the first node to the SID format used by the second node and sending the converted SID frame to the second node (converting from type I to type II, para. [0050]). Gass does not disclose: determining whether one of the first and second codecs comprises a second generation global system for mobile enhanced full rate (2G_GSM_EFR) codec and the other of the first and second codecs comprises a third generation global system for mobile enhanced full rate (3G_GSM_EFR) codec; responsive to a determination that the codecs comprise a 2G_GSM_EFR codec and a 3G_GSM_EFR codec, determining whether the frame is a SID frame. However Barany discloses a method including: determining whether one of the first and second codecs comprises a second generation global system for mobile enhanced full rate (2G_GSM_EFR) codec and the other of the first and second codecs comprises a third generation global system for mobile enhanced full rate (3G_GSM_EFR) codec (para. [0131], [0133]); responsive to a determination that the codecs comprise a 2G_GSM_EFR codec and a 3G_GSM_EFR codec, determining whether the frame is a SID frame (para. [0131], [0133]). Therefore, it would have been obvious to one of ordinary skill in the art to determine if the frame is for a 2G network or for a 3G network as taught by Barany, in the method of Gass because to allow for interfacing between the 2G networks and 3G networks (Barany: para. [0131]), thereby increasing communication interfacing efficiency and hence increasing the overperformance of the combined system.</p> <p>(See Supplemental Box)</p>				

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US 07/26413

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:
Box No. V — Reasoned Statement
2. Citations and Explanations:

As per claims 7 and 8, Barany further discloses determining whether the input frame is a SID frame includes determining, based on the contents of a frame index field indicator, whether the input frame is a SID frame for a third generation (3G) network or whether the input frame is a SID frame for a second generation (2G) network (para. [0131], [0133]).

Claims 3, 4, 12 and 13 lack an inventive step under PCT Article 33(3) as being obvious over Gass in view of El-Maleh '539 as applied above, and further in view of Barany.

As per claims 3, 4, 12 and 13, Gass in view of El-Maleh '539 discloses the method and system as applied to claims 1 and 10, above, but does not disclose that determining whether the input frame is a SID frame includes determining, based on the contents of a frame index field indicator, whether the input frame is a SID frame for a third generation (3G) network or whether the input frame is a SID frame for a second generation (2G) network. However, Barany discloses determining whether the input frame is a SID frame includes determining, based on the contents of a frame index field indicator, whether the input frame is a SID frame for a third generation (3G) network or whether the input frame is a SID frame for a second generation (2G) network (para. [0131], [0133]). Therefore, it would have been obvious to one of ordinary skill in the art to determine if the frame is for a 2G network or for a 3G network as taught by Barany, in the combined teachings of Gass and El-Maleh '539 because to allow for interfacing between the 2G networks and 3G networks (Barany: para. [0131]), thereby increasing communication interfacing efficiency and hence increasing the overall performance of the combined system.

Claims 5 and 14 lack an inventive step under PCT Article 33(3) as being obvious over Gass in view of El-Maleh '539 as applied above, and further in view of US 2004/0133419 A1 to El-Maleh et al. (hereinafter El-Maleh '419).

As per claims 5 and 14, Gass in view of El-Maleh '539 discloses the method and system as applied to claims 1 and 10, above, but does not disclose that converting the SID frame includes: locating line spectral frequency information and energy gain information within the frame; extracting the line spectral frequency and energy gain information from the frame; and generating, as the converted SID frame, a wireless frame of the SID format used by the second node and containing the extracted line spectral frequency and energy gain information.

However, El-Maleh '419 discloses a method of wherein converting the SID frame includes:

locating line spectral frequency information and energy gain information within the frame (spectral parameters and energy gain values, para. [0028]);

extracting the line spectral frequency and energy gain information from the frame (para. [0028]); and

generating, as the converted SID frame, a wireless frame of the SID format used by the second node and containing the extracted line spectral frequency and energy gain information (para. [0028], generating a SID frame also known as comfort noise).

Therefore, it would have been obvious to one of ordinary skill in the art to determine spectral parameters and energy gain values as taught by El-Maleh '419, in the combined teachings of Gass and El-Maleh '539 because to generate comfort noise (El-Maleh '419: para. [0028]), thereby increasing communication interfacing efficiency and hence increasing the overall performance of the combined system.

Claim 9 lacks an inventive step under PCT Article 33(3) as being obvious over Gass in view of Barany as applied above, and further in view of El-Maleh '419.

As per claim 9, Gass in view of El- Barany discloses the method as applied to claim 6, above, but does not disclose that converting the SID frame includes: locating line spectral frequency information and energy gain information within the frame; extracting the line spectral frequency and energy gain information from the frame; and generating, as the converted SID frame, a wireless frame of the SID format used by the second node and containing the extracted line spectral frequency and energy gain information.

However, El-Maleh '419 discloses a method of wherein converting the SID frame includes:

locating line spectral frequency information and energy gain information within the frame (spectral parameters and energy gain values, para. [0028]);

extracting the line spectral frequency and energy gain information from the frame (para. [0028]); and

generating, as the converted SID frame, a wireless frame of the SID format used by the second node and containing the extracted line spectral frequency and energy gain information (para. [0028], generating a SID frame also known as comfort noise).

Therefore, it would have been obvious to one of ordinary skill in the art to determine spectral parameters and energy gain values as taught by El-Maleh '419, in the combined teachings of Gass and Barany because to generate comfort noise (El-Maleh '419: para. [0028]), thereby increasing communication interfacing efficiency and hence increasing the overall performance of the combined system.

Claims 1-15 have industrial applicability as defined by PCT Article 33(4) because the subject matter claimed can be made or used in industry.